

In the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (original) A highly corrosion-resistant hot-dip galvanized steel product excellent in surface smoothness and formability, having on the steel product surface a zinc alloy plating layer composed of 4 to 10% by mass of Al, 1 to 5% by mass of Mg, up to 0.1% by mass of Ti and the balance of Zn and unavoidable impurities, the plating layer having a metal structure in which one or at least two of the [Al phase], [Zn₂Mg phase] and [Zn phase] are present in a mixture in the matrix of an [Al/Zn/Zn₂Mg ternary eutectic structure], and the plating layer containing a Ti-Al base intermetallic compound in one or at least two of the [Al phase], [Zn₂Mg phase] and [Zn phase].

2. (original) A highly corrosion-resistant hot-dip galvanized steel product excellent in surface smoothness and formability, having on the steel product surface a zinc alloy plating layer composed of 4 to 22% by mass of Al, 1 to 5% by mass of Mg, up to 0.1% by mass of Ti, up to 0.5% by mass of Si and the balance of Zn and unavoidable impurities, the plating layer of the plated steel product having a metal structure in which an [Mg₂Si phase], an [Al phase] and a [Zn₂Mg phase] are present in a mixture in the matrix of an [Al/Zn/Zn₂Mg ternary eutectic structure], and the plating layer containing a Ti-Al base intermetallic compound in one or at least two of the [Al phase] and [Zn₂Mg phase].

3. (original) A highly corrosion-resistant hot-dip galvanized steel product excellent in surface smoothness and formability, having on the steel product surface a zinc alloy plating layer composed of 4 to 22% by mass of Al, 1 to 5% by

mass of Mg, up to 0.1% by mass of Ti, up to 0.5% by mass of Si and the balance of Zn and unavoidable impurities, the plating layer of the plated steel product having a metal structure in which an $[Mg_2Si]$ phase, an $[Al]$ phase, a $[Zn_2Mg]$ phase and a $[Zn]$ phase are present in a mixture in the matrix of an $[Al/Zn/Zn_2Mg]$ ternary eutectic structure], and the plating layer containing a Ti-Al base intermetallic compound in one or at least two of the $[Al]$ phase, $[Zn_2Mg]$ phase and $[Zn]$ phase].

4. (original) A highly corrosion-resistant hot-dip galvanized steel product excellent in surface smoothness and formability, having on the steel product surface a zinc alloy plating layer composed of 4 to 22% by mass of Al, 1 to 5% by mass of Mg, up to 0.1% by mass of Ti, up to 0.5% by mass of Si and the balance of Zn and unavoidable impurities, the plating layer of the plated steel product having a metal structure in which an $[Mg_2Si]$ phase, an $[Al]$ phase and a $[Zn]$ phase are present in a mixture in the matrix of an $[Al/Zn/Zn_2Mg]$ ternary eutectic structure], and the plating layer containing a Ti-Al base intermetallic compound in one or two of the $[Al]$ phase and $[Zn]$ phase].

5. (original) A highly corrosion-resistant hot-dip galvanized steel product excellent in surface smoothness and formability, wherein the Ti-Al base intermetallic compound according to any one of claims 1 to 4 is $TiAl_3$.

6. (original) A highly corrosion-resistant hot-dip galvanized steel product excellent in surface smoothness and formability, wherein the Ti-Al base intermetallic compound according to any one of claims 1 to 4 is $Ti(Al_{1-x}Si_x)_3$ (wherein $x = 0$ to 0.5).

7. (currently amended) The highly corrosion-resistant hot-dip galvanized steel product excellent in surface

smoothness and formability according to any one of claims 1 to 6 4, wherein the Ti-Al base intermetallic compound contained in an [Al phase] in the plating layer is present in a Zn-Al eutectoid reaction structure in which Zn phases are condensed.

8. (currently amended) The highly corrosion-resistant hot-dip galvanized steel product excellent in surface smoothness and formability according to any one of claims 1 to 7 4, wherein the size of a dendrite in an [Al phase] in the plating layer is up to 500 μm .

9. (currently amended) A process for producing the highly corrosion-resistant hot-dip galvanized steel product excellent in surface smoothness and formability according to any one of claims 1 to 8 4, comprising the step of adding a Ti-Zn base intermetallic compound to a plating bath.